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RAW SEQUENCE LISTING DATE: 04/26/2001
PATENT APPLICATION: US/09/724,481 TIME: 10:25:22

Input Set : N:\Crf3\RULE60\09724481.txt
Output Set: N:\CRF3\04262001\I724481.raw

SEQUENCE LISTING

3 (1) GENERAL INFORMATION:
5 (i) APPLICANT: Clark, Ross G1
6 Lowman, Henry B.
7 Robinson, Iain C.A.F.
9 (ii) TITLE OF INVENTION: Insulin-like Growth Factor Agonist Molecules
11 (iii) NUMBER OF SEQUENCES: 109
13 (iv) CORRESPONDENCE ADDRESS:
14 (A) ADDRESSEE: Genentech, Inc.
15 (B) STREET: 1 DNA Way
16 (C) CITY: South San Francisco
17 (D) STATE: California
18 (E) COUNTRY: USA
19 (F) ZIP: 94080
21 (v) COMPUTER READABLE FORM:
22 (A) MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
23 (B) COMPUTER: IBM PC compatible
24 (C) OPERATING SYSTEM: PC-DOS/MS-DOS
25 (D) SOFTWARE: WinPatin (Genentech)
27 (vi) CURRENT APPLICATION DATA:
C--> 28 (A) APPLICATION NUMBER: US/09/724,481
C--> 29 (B) FILING DATE: 28-Nov-2000
30 (C) CLASSIFICATION:
32 (vii) PRIOR APPLICATION DATA:
33 (A) APPLICATION NUMBER: 09/052,888
34 (B) FILING DATE: 31-Mar-1998
37 (viii) ATTORNEY/AGENT INFORMATION:
38 (A) NAME: Hasak, Janet E.
39 (B) REGISTRATION NUMBER: 28,616
40 (C) REFERENCE/DOCKET NUMBER: P1071P1
42 (ix) TELECOMMUNICATION INFORMATION:
43 (A) TELEPHONE: 650/225-1896
44 (B) TELEFAX: 650/952-9881
45 (2) INFORMATION FOR SEQ ID NO: 1:
47 (i) SEQUENCE CHARACTERISTICS:
48 (A) LENGTH: 21 amino acids
49 (B) TYPE: Amino Acid
50 (D) TOPOLOGY: Linear
52 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
54 Glu Leu Asp Gly Trp Val Cys Ile Lys Val Gly Glu Gln Asn Leu
55 1 5 10 15
57 Cys Tyr Leu Ala Glu Gly
58 20 21
60 (2) INFORMATION FOR SEQ ID NO: 2:
62 (i) SEQUENCE CHARACTERISTICS:
63 (A) LENGTH: 21 amino acids
64 (B) TYPE: Amino Acid

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65      (D) TOPOLOGY: Linear
67      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
69  Trp Phe Lys Thr Val Cys Tyr Glu Trp Glu Asp Glu Val Gln Cys
70  1          5          10          15
72  Tyr Thr Leu Glu Glu Gly
73          20  21
75 (2) INFORMATION FOR SEQ ID NO: 3:
77      (i) SEQUENCE CHARACTERISTICS:
78          (A) LENGTH: 21 amino acids
79          (B) TYPE: Amino Acid
80          (D) TOPOLOGY: Linear
82      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
84  Arg Val Gly Ala Tyr Ile Ser Cys Ser Glu Thr Glu Cys Trp Val
85  1          5          10          15
87  Glu Asp Leu Leu Asp Gly
88          20  21
90 (2) INFORMATION FOR SEQ ID NO: 4:
92      (i) SEQUENCE CHARACTERISTICS:
93          (A) LENGTH: 20 amino acids
94          (B) TYPE: Amino Acid
95          (D) TOPOLOGY: Linear
97      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
99  Val Ala Trp Glu Val Cys Trp Asp Arg His Asp Gln Gly Tyr Ile
100 1          5          10          15
102 Cys Thr Thr Asp Ser
103          20
105 (2) INFORMATION FOR SEQ ID NO: 5:
107      (i) SEQUENCE CHARACTERISTICS:
108          (A) LENGTH: 18 amino acids
109          (B) TYPE: Amino Acid
110          (D) TOPOLOGY: Linear
112      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
114 Ala Trp Glu Val Cys Trp Asp Arg His Gln Gly Tyr Ile Cys Thr
115 1          5          10          15
117 Thr Asp Ser
118          18
120 (2) INFORMATION FOR SEQ ID NO: 6:
122      (i) SEQUENCE CHARACTERISTICS:
123          (A) LENGTH: 15 amino acids
124          (B) TYPE: Amino Acid
125          (D) TOPOLOGY: Linear
127      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
129 Cys Trp Asp Arg His Asp Gln Gly Tyr Ile Cys Thr Thr Asp Ser
130 1          5          10          15
132 (2) INFORMATION FOR SEQ ID NO: 7:
134      (i) SEQUENCE CHARACTERISTICS:
135          (A) LENGTH: 18 amino acids
136          (B) TYPE: Amino Acid
137          (D) TOPOLOGY: Linear

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139      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
141  Glu Glu Ser Glu Cys Phe Glu Gly Pro Gly Tyr Val Ile Cys Gly
142      1              5              10              15
144  Leu Val Gly
145      18
147  (2) INFORMATION FOR SEQ ID NO: 8:
149      (i) SEQUENCE CHARACTERISTICS:
150          (A) LENGTH: 18 amino acids
151          (B) TYPE: Amino Acid
152          (D) TOPOLOGY: Linear
154      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
156  Asp Met Gly Val Cys Ala Asp Gly Pro Trp Met Tyr Val Cys Glu
157      1              5              10              15
159  Trp Thr Glu
160      18
162  (2) INFORMATION FOR SEQ ID NO: 9:
164      (i) SEQUENCE CHARACTERISTICS:
165          (A) LENGTH: 18 amino acids
166          (B) TYPE: Amino Acid
167          (D) TOPOLOGY: Linear
169      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
171  Ser Glu Glu Val Cys Trp Pro Val Ala Glu Trp Tyr Leu Cys Asn
172      1              5              10              15
174  Met Trp Gly
175      18
177  (2) INFORMATION FOR SEQ ID NO: 10:
179      (i) SEQUENCE CHARACTERISTICS:
180          (A) LENGTH: 15 amino acids
181          (B) TYPE: Amino Acid
182          (D) TOPOLOGY: Linear
184      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
186  Ser Glu Glu Val Cys Trp Pro Val Ala Glu Trp Tyr Leu Cys Asn
187      1              5              10              15
189  (2) INFORMATION FOR SEQ ID NO: 11:
191      (i) SEQUENCE CHARACTERISTICS:
192          (A) LENGTH: 15 amino acids
193          (B) TYPE: Amino Acid
194          (D) TOPOLOGY: Linear
196      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:
198  Val Cys Trp Pro Val Ala Glu Trp Tyr Leu Cys Asn Met Trp Gly
199      1              5              10              15
201  (2) INFORMATION FOR SEQ ID NO: 12:
203      (i) SEQUENCE CHARACTERISTICS:
204          (A) LENGTH: 12 amino acids
205          (B) TYPE: Amino Acid
206          (D) TOPOLOGY: Linear
208      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:
210  Val Cys Trp Pro Val Ala Glu Trp Tyr Leu Cys Asn
211      1              5              10              12

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213 (2) INFORMATION FOR SEQ ID NO: 13:
215     (i) SEQUENCE CHARACTERISTICS:
216         (A) LENGTH: 18 amino acids
217         (B) TYPE: Amino Acid
218         (D) TOPOLOGY: Linear
220     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:
222 Thr Gly Val Asp Cys Gln Cys Gly Pro Val His Cys Val Cys Met
223   1               5               10               15
225 Asp Trp Ala
226           18
228 (2) INFORMATION FOR SEQ ID NO: 14:
230     (i) SEQUENCE CHARACTERISTICS:
231         (A) LENGTH: 18 amino acids
232         (B) TYPE: Amino Acid
233         (D) TOPOLOGY: Linear
235     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:
237 Thr Val Ala Asn Cys Asp Cys Tyr Met Pro Leu Cys Leu Cys Tyr
238   1               5               10               15
240 Asp Ser Asp
241           18
243 (2) INFORMATION FOR SEQ ID NO: 15:
245     (i) SEQUENCE CHARACTERISTICS:
246         (A) LENGTH: 15 amino acids
247         (B) TYPE: Amino Acid
248         (D) TOPOLOGY: Linear
250     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:
252 Cys Arg Ala Gly Pro Leu Gln Trp Leu Cys Glu Lys Tyr Phe Gly
253   1               5               10               15
255 (2) INFORMATION FOR SEQ ID NO: 16:
257     (i) SEQUENCE CHARACTERISTICS:
258         (A) LENGTH: 19 amino acids
259         (B) TYPE: Amino Acid
260         (D) TOPOLOGY: Linear
262     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:
264 Ser Glu Val Gly Cys Arg Ala Gly Pro Leu Gln Trp Leu Cys Glu
265   1               5               10               15
267 Lys Tyr Phe Gly
268           19
270 (2) INFORMATION FOR SEQ ID NO: 17:
272     (i) SEQUENCE CHARACTERISTICS:
273         (A) LENGTH: 400 base pairs
274         (B) TYPE: Nucleic Acid
275         (C) STRANDEDNESS: Double
276         (D) TOPOLOGY: Linear
278     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 17:
281 TCACGTAAAA AGGGTATCTA GAATTATGAT GATTACTCTG CGCAAAC TTC 50
283 CTCTGGCGGT TGCCGTCGCA GCGGGCGTAA TGTCTGCTCA GGCCATGGCC 100
285 GGTCCCGAAA CTCTGTGCGG TGCTGAACTG GTTGACGCTC TGCA GTTCGT 150
287 ATGTGGTGAT CGAGGCTTCC TGTTCAACAA ACCGACTGGG GCTGGATCCT 200

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289 CCTCTCGTCG TGCTCCCCAG ACTGGTATTG TTGACGAATG CTGCTTTCGT 250
 291 TCTTGCGACC TGCGTCGTCT GGAAATGTAT TGCCTCCCC TGAAACCCGC 300
 293 TAAATCTGCT TAGAAGCTCC TAACGCTCGG TTGCCGCCGG GCGTTTTTTA 350
 295 TTGTAACTC ATGTTTGACA GCTTATCATC GATAAGCTTT AATGCGGTAG 400

(2) INFORMATION FOR SEQ ID NO: 18:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 95 amino acids

(B) TYPE: Amino Acid

(D) TOPOLOGY: Linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 18:

304 Met Met Ile Thr Leu Arg Lys Leu Pro Leu Ala Val Ala Val Ala
 306 1 5 10 15
 309 Ala Gly Val Met Ser Ala Gln Ala Met Ala Gly Pro Glu Thr Leu
 310 20 25 30
 312 Cys Gly Ala Glu Leu Val Asp Ala Leu Gln Phe Val Cys Gly Asp
 313 35 40 45
 315 Arg Gly Phe Leu Phe Asn Lys Pro Thr Gly Ala Gly Ser Ser Ser
 316 50 55 60
 318 Arg Arg Ala Pro Gln Thr Gly Ile Val Asp Glu Cys Cys Phe Arg
 319 65 70 75
 321 Ser Cys Asp Leu Arg Arg Leu Glu Met Tyr Cys Ala Pro Leu Lys
 322 80 85 90
 324 Pro Ala Lys Ser Ala
 325 95

(2) INFORMATION FOR SEQ ID NO: 19:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 5115 base pairs

(B) TYPE: Nucleic Acid

(C) STRANDEDNESS: Double

(D) TOPOLOGY: Linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 19:

338 GAATTCAACT TCTCCATACT TTGGATAAGG AAATACAGAC ATGAAAAATC 50
 340 TCATTGCTGA GTTGTATTAT AAGCTTGCCC AAAAAGAAGA AGAGTCGAAT 100
 342 GAACTGTGTG CGCAGGTAGA AGCTTTGGAG ATTATCGTCA CTGCAATGCT 150
 344 TCGCAATATG GCGCAAAATG ACCAACAGCG GTTGATTGAT CAGGTAGAGG 200
 346 GGGCGCTGTA CGAGGTAAAG CCCGATGCCA GCATTCCTGA CGACGATACG 250
 348 GAGCTGTGTC GCGATTACGT AAAGAAGTTA TTGAAGCATC CTCGTCAGTA 300
 350 AAAAGTTAAT CTTTTCAACA GCTGTCATAA AGTTGTCACG GCCGAGACTT 350
 352 ATAGTCGCTT TGTTTTTATT TTTTAATGTA TTTGTAAC TAACGCAAGT 400
 354 TCACGTAAAA AGGGTATCTA GAATTATGAT GATTACTCTG CGCAAACCTC 450
 356 CTCTGGCGGT TGCCGTCGCA GCGGGCGTAA TGTCTGCTCA GGCCATGGCC 500
 358 GGTCCTCGAA CTCTGTGCGG TGCTGAAC TGTTGACGCTC TGCAATTCGT 550
 360 ATGTGGTGAT CGAGGCTTCC TGTTCACAAA ACCGACTGGG GCTGGATCCT 600
 362 CCTCTCGTCG TGCTCCCCAG ACTGGTATTG TTGACGAATG CTGCTTTCGT 650
 364 TCTTGCGACC TGCGTCGTCT GGAAATGTAT TGCCTCCCC TGAAACCCGC 700
 366 TAAATCTGCT TAGAAGCTCC TAACGCTCGG TTGCCGCCGG GCGTTTTTTA 750
 368 TTGTAACTC ATGTTTGACA GCTTATCATC GATAAGCTTT AATGCGGTAG 800
 370 TTTATCACAG TTAATGTCT AACGCAGTCA GGCACCGTGT ATGAAATCTA 850
 372 ACAATGCGCT CATCGTCATC CTCGGCACCG TCACCTGGA TGCTGTAGGC 900

VERIFICATION SUMMARY

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TIME: 10:25:23

Input Set : N:\Crf3\RULE60\09724481.txt

Output Set: N:\CRF3\04262001\I724481.raw

L:28 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
L:29 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]
L:808 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=23
L:826 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
L:841 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:844 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:856 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26
L:859 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26
L:871 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27
L:874 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27
L:886 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28
L:889 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28
L:901 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29
L:904 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29
L:916 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:919 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:931 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:934 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:946 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32
L:949 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32
L:961 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33
L:964 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33
L:991 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35
L:1016 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=37
L:1139 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45
L:1142 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45